

INDEX

DOKLADY BOTANICAL SCIENCES

Volumes 178-183, 1968



## DOKLADY BOTANICAL SCIENCES Volumes 178-183, 1968

(A translation of the Botanical Sciences Sections of Doklady Akademii Nauk SSSR)

### A

Akhundova, E. M. - 26  
Aksenova, V. V. - 9  
Ali-Zade, M. A. - 26  
Al'zhanova, R. M. - 192  
Andreeva, I. N. - 116

### B

Baburina, O. M. - 38  
Babushkin, L. N. - 64  
Batrshina, A. A. - 178  
Batygina, T. B. - 109  
Bell, L. N. - 157  
Belozerskaya, T. A. - 95  
Bichurina, A. A. - 70, 183  
Borodenko, L. I. - 83  
Britikov, E. A. - 122  
Brynza, A. I. - 9  
Butenko, R. G. - 36  
Bykov, O. D. - 206

### C

Chailakhyan, M. Kh. - 141, 151, 174, 209  
Chukov, A. G. - 42

### D

Dranik, L. I. - 103  
Dul'binskaya, D. A. - 172

### F

Florov, R. I. - 23, 77, 204  
Frolov, I. N. - 172  
Frolova, I. A. - 174

### G

Glyan'ko, A. K. - 101  
Goncharova, E. V. - 139  
Gordon, L. Kh. - 67, 70, 183  
Granitova, T. S. - 172  
Grebinskii, S. O. - 195  
Grineva, G. M. - 29, 116  
Gulyaev, B. I. - 132

### I

Ioffe, A. A. - 92  
Ivantsov, A. I. - 113

### K

Karatygin, I. V. - 13, 169  
Karpov, E. A. - 186  
Kartashova, E. R. - 148  
Khailova, G. F. - 58  
Khavkin, É. E. - 38  
Kochankov, V. G. - 209  
Komissarenko, N. F. - 3  
Komizerko, E. I. - 36  
Koretskaya, T. F. - 98  
Korovin, A. I. - 101, 172  
Kotlyar, V. Z. - 189  
Kritskii, M. S. - 95  
Krupnikova, T. A. - 103  
Krylov, Yu. V. - 160  
Kudryavtsev, V. A. - 192  
Kulaev, I. S. - 80, 95

### L

Leonova, L. A. - 119  
Lipasova, V. A. - 29, 116  
Lushchinskaya, E. N. - 55  
Lyubinskii, N. A. - 189

### M

Malysheva, K. M. - 51  
Manuil'skii, V. D. - 132  
Maricheva, É. A. - 172  
Metlitskii, L. V. - 6  
Mironova, G. S. - 157  
Molotok, G. P. - 122  
Moskaleva, V. E. - 139

### N

Nekrasova, T. V. - 141  
Nichiporovich, A. A. - 157

### O

Okanenko, A. S. - 132  
Okorokov, L. A. - 80  
Osharova, L. M. - 119

Oshmarova, I. S. - 160  
Ovcharenko, G. A. - 58  
Ozeretskoykaya, O. L. - 6

### P

Peive, Ya. V. - 58, 83  
Pisarev, V. E. - 178  
Podol'nyi, V. Z. - 151  
Pogosyan, S. I. - 98  
Polevoi, V. V. - 119  
Polikarpochkina, R. T. - 38  
Popova, M. N. - 154  
Prosteva, M. I. - 32, 199

### R

Rubin, B. A. - 9, 55, 148

### S

Saakov, V. S. - 89, 126  
Samuilov, F. D. - 67, 129  
Savchenko, R. V. - 9  
Sedykh, N. V. - 129  
Semenenko, A. D. - 180  
Shapiro, I. D. - 167  
Shcherbina, I. P. - 73  
Shevyakova, N. I. - 154  
Shkol'nik, M. Ya. - 103  
Shul'gin, L. A. - 73  
Shuvalova, N. P. - 157  
Sinyukhin, A. M. - 122  
Skazkin, F. D. - 42  
Slepyan, É. I. - 13, 17, 61  
Sobolev, A. M. - 113  
Stoyanov, Zh. - 204  
Stroganova, M. A. - 202  
Sveshnikova, I. N. - 113

### T

Terek, O. I. - 195  
Terekhin, É. S. - 20  
Tokareva, É. V. - 38  
Trukhin, N. V. - 45

### V

Vasyukova, N. I. - 6  
Veselovskii, V. A. - 98

Vilkova, N. A. - 167  
Voskresenskaya, N. P. - 160

**Y**

Yagodin, B. A. - 58, 83  
Yanina, L. I. - 174

**Z**

Zabluda, G. V. - 32, 199  
Zel'tser, S. Sh. - 51

Zhdanova, L. P. - 145  
Zhiznevskaya, G. Ya. - 83  
Zholkevich, V. N. - 98  
Zoz, I. G. - 3

# TABLES OF CONTENTS

## DOKLADY BOTANICAL SCIENCES

Volumes 178-183, 1968

(A translation of the Botanical Sciences Sections of Doklady Akademii Nauk SSSR)

Engl./Russ.

### Volumes 178-179 January-April, 1968

#### VOLUME 178, JANUARY-FEBRUARY, 1968

##### BOTANY

- Worldwide Distribution of Cardenolides and Bufadienolides—I. G. Zoz  
and N. F. Komissarenko ..... 3 238

##### PHYTOPATHOLOGY

- Antibiotic Substances in the Potato Formed during the Necrotic Reaction  
—O. L. Ozeretskovskaya, N. I. Vasyukova, and L. V. Metlitskii ..... 6 244
- Influence of Botrytis cinerea Infection on Ribosomal Properties and Functions in Cabbage  
Tissues—V. V. Aksenova, B. A. Rubin, R. V. Savchenko, and A. I. Brynza ..... 9 741
- Productive Necrotic Erythrodermia—A Primary Symptom of Infection by *Ustilago maydis*  
(D. C.) Cda on Leaves of *Zea mays* L.—É. I. Slepyan and I. V. Karatygin ..... 13 1212
- Blastemomorphous Stage of Formation of Galls Caused by *Ustilago maydis* (D. C.) Cda  
on Corn Leaves—É. I. Slepyan ..... 17 1424

##### PLANT EMBRYOLOGY

- Metamorphosis in Ontogenesis of Parasitic Angiospermous Plants—É. S. Terekhin ..... 20 957

##### PLANT PHYSIOLOGY

- Experiment in Determining the Rate of Development of Entropy in the Leaf System of Plants  
on the Basis of the Law of Dissipation of Energy—R. I. Florov ..... 23 241
- Changes in the Content of Nucleic Acids in the Leaves of Polyploid Forms of Mulberry  
—M. A. Ali-Zade and E. M. Akhundova ..... 26 725
- Role of the Pentose Phosphate Pathway of Respiration in Corn Roots under Various Conditions  
of Anaerobiosis—G. M. Grineva and V. A. Lipasova ..... 29 728
- Characteristics of the Development of Winter Wheats and Rye on a Background  
of Presowing Seed Vernalization and Different Light Conditions during the Growth  
Period—G. V. Zabluda and M. I. Prosteva ..... 32 731
- Action of High Concentrations of NaCl and Na<sub>2</sub>SO<sub>4</sub> on a Culture of Tobacco Tissue  
—E. I. Komizerko and R. G. Butenko ..... 36 735
- Nitrate Reductase, Glutamate Dehydrogenase, and Aminotransferase Activity in Growth Zones  
of Corn Roots—É. E. Khavkin, R. T. Polikarpochkina, O. M. Baburina,  
and É. V. Tokareva ..... 38 737
- Effect of Lack of Soil-Water during the Critical Period on the Protoplasm of Cells  
of Vegetative and Generative Organs of Summer Cereal Crops—A. G. Chuikov  
and F. D. Skazkin ..... 42 1208
- Reaction of *Chlorella Pyrenoidosa* to the Damaging Effect of Intense Light—N. V. Trukhin .. 45 1421

#### VOLUME 179, MARCH-APRIL, 1968

##### PHYTOPATHOLOGY

- Protein-Lipid-Polysaccharide Complex from the Culture and Mycelium of the Fungus *Verticillium*  
*dahliae* KLEB, the Causative Agent of Verticillaceous Wilt of Cotton—K. M. Malysheva  
and S. Sh. Zel'tser ..... 51 231

Effect of Infection of Corn by the Fungus <i>Ustilago zeae</i> on the Properties of the Chlorophyll-Protein Complex—B. A. Rubin and E. N. Lushchinskaya	55	483
Localization of Dehydrogenases in the Nodular Tissues of Leguminous Crops—Ya. V. Peive, B. A. Yagodin, G. A. Ovcharenko, and G. F. Khailova	58	1471
Callusomorphic Stage in Development of Galls Caused by <i>Ustilago maydis</i> (DC) CDA. on Corn Leaves—É. I. Slepian	61	1473
PLANT PHYSIOLOGY		
On the Mechanism of the Rise in the Transpiration of Leaves Isolated from the Plant—L. N. Babushkin	64	225
Effect of Phosphorus Starvation of the Respiratory Metabolism of Plants—F. D. Samuilov and L. Kh. Gordon	67	228
Some Peculiarities of the Pentose Phosphate Pathway of Plant Respiration—L. Kh. Gordon and A. A. Bichurina	70	476
On the Effectiveness of the Action of Light of Different Spectral Composition in Photomorphogenesis Reactions—L. A. Shul'gin and L. P. Shcherbina	73	479
An Attempt to Determine Potential Productivity of a Natural Forest Stand on the Basis of Its Pattern of Energy Dissipation—Roman I. Florov	77	736
Phosphate Absorption by <i>Penicillium chrysogenum</i> —I. S. Kulaev and L. A. Okorokov	80	982
High Molecular Weight Iron-Containing Protein and Ferredoxin during Cobalt Chlorosis in Plants—Ya. V. Peive, B. A. Yagodin, G. Ya. Zhiznevskaya, and L. I. Borodenko	83	1243

## Volumes 180-181 May-August, 1968

### Volume 180, May-June, 1968

PLANT PHYSIOLOGY		
Oxidative Metabolism of Carotene and Its Physiological Role in the Leaf—V. S. Saakov	89	241
Correlation of Leaf Movement and Flowering in <i>Perilla Oleifera</i> —A. A. Ioffe	92	496
Relationship between RNA and Polyphosphate Metabolism in Certain Fungi—M. S. Kritskii, T. A. Belozerskaya, and I. S. Kulaev	95	746
Relationship between the Respiratory Rate and Ultraweak Luminescence of <i>Cucumis Sativus</i> Roots—T. F. Koretskaya, V. A. Veselovskii, S. I. Pogosyan, and V. N. Zholkevich	98	1005
Absorption of Ammonium and Nitrate Nitrogen by Plants Depending upon the Temperature in the Root Zone—A. I. Korovin and A. K. Glyan'ko	101	1495
Phenolcarboxylic Acids of Corn ( <i>Zea Mays</i> L.)—T. A. Krupnikova, L. I. Dranik, and M. Ya. Shkol'nik	103	1497

### Volume 181, July-August, 1968

PLANT EMBRYOLOGY		
Possibility of Defining a New Type of Embryogenesis in the Angiospermae—T. B. Batygina	109	1499
Origin of Aleurone Grains in Endosperm of Maturing Castor Plant Seeds—A. M. Sobolev, I. N. Sveshnikova, and A. I. Ivantsov	113	1503
PLANT PHYSIOLOGY		
Respiratory Metabolism and Ultrastructure of Mitochondria in the Root Cells of Corn after Short and Prolonged Anaerobiosis—G. M. Grineva, I. N. Andreeva, and V. A. Lipasova	116	248
Some Peculiarities of the Bioelectric Response of Corn Coleoptile Segments to Treatment with Auxin—V. V. Polevoi, L. M. Osharova, and L. A. Leonova	119	250
Electrophysiological and Functional Activity of the Nectaries of Lime on Mechanical Stimulation—G. P. Molotok, E. A. Britikov, and A. M. Sinyukhin	122	750
The Possible Relationship of the Metabolic Conversions of Carotenoids to Chlorophyll Biosynthesis—V. S. Saakov	126	1001
The State of Tissue Water during the Disruption of Energy Transfer Processes in Plants—F. D. Samuilov and N. V. Sedykh	129	1005
A Study of Photosynthetic Rate in Sugar Beet Leaves as a Function of Light and Moisture—A. S. Okanenko, B. I. Gulyaev, and V. D. Manuil'skii	132	1495

## Volumes 182-183

September-December, 1968

## VOLUME 182, SEPTEMBER-OCTOBER, 1968

## PLANT ANATOMY

- Some Data on the Structure of the Middle Lamella in Woody Plants—V. E. Moskaleva,  
and E. V. Goncharova ..... 139 973

## PLANT PHYSIOLOGY

- Effect of Growth Stimulators and Inhibitors on Root Formation of Lemon Cuttings  
—T. V. Nekrasova and M. Kh. Chailakhyan ..... 141 221
- Effect of Temperature on the Volatile Acid Content of Seeds and Leaves of Oil Plants  
—L. P. Zhdanova ..... 145 719
- Mode of Action of Thiolic Compounds in Chlorophyll Biosynthesis—B. A. Rubin  
and E. R. Kartashova ..... 148 723
- On the Role of the Cotyledons in the Development of Short-Day Plants  
—M. Kh. Chailakhyan and V. Z. Podol'nyi ..... 151 726
- Formation of Sulfate in Plants in the Presence of Sodium Sulfate—N. I. Shevyakova  
and M. N. Popova ..... 154 975
- Spectrum of the Energy Yield of Photosynthesis. Anomaly in the Short-Wave Region  
of the Visible Spectrum—L. N. Bell, N. P. Shuvalova, G. S. Mironova (Bukina),  
and A. A. Nichiporovich ..... 157 1439
- Effect of Prolonged and Brief Action of Blue Light on Photosynthesis of Pea Plants  
—N. P. Voskresenskaya, I. S. Oshmarova, and Yu. V. Krylov ..... 160 1443

## VOLUME 183, NOVEMBER-DECEMBER, 1968

## PHYTOPATHOLOGY

- The Effect on Wheat Grain of Enzymes Produced by the Shield Bug *Eurygaster integriceps* Put.  
—N. A. Vilkova and I. D. Shapiro ..... 167 1456
- Dimorphism in Germination of Spores of *Ustilago maydis* on Leaves of *Zea mays*  
—I. V. Karatygin ..... 169 1458

## PLANT PHYSIOLOGY

- Effect of Temperature in the Root Zone on Absorption of Mineral Nutrients by Plants  
—A. I. Korovin, É. A. Maricheva, I. N. Frolov, T. S. Granitova, and D. A. Dul'binskaya ..... 172 227
- The Influence of Daylength and Gibberellin on the Flowering of Bryophyllum Plants  
of Different Ages—M. Kh. Chailakhyan, L. I. Yanina, and I. A. Frolova ..... 174 230
- Oligosaccharide Content in Cereals and Cold Resistance of Winter Crops—V. E. Pisarev  
and A. A. Batrshina ..... 178 474
- "Short-Term Memory" of Plants—A. D. Semenenko ..... 180 476
- Can the P/O Ratio Serve as the Main Index of the Efficiency of Plant Respiration?  
—L. Kh. Gordon and A. A. Bichurina ..... 183 727
- Development of a Geometric Surface and Absorptive Activity of Root Epidermal Cells  
—E. A. Karpov ..... 186 730
- Rate of D<sub>2</sub>O Uptake into Tissues of Potato Tubers—V. Z. Kotlyar and N. A. Lyubinskii ... 189 733
- Influence of Illumination of Aerial Organs on Metabolic Activity of Wheat Roots  
—R. M. Al'zhanova and V. A. Kudryavtsev ..... 192 970
- Disturbance of Nitrogen Metabolism in Corn under the Influence of Gibberellin  
—S. O. Grebinskii and O. I. Terek ..... 195 974
- The Influence of Post-Sowing Freezing of Seeds on the Development of Winter Cereals  
—G. V. Zabluda and M. I. Prosteva ..... 199 1213
- Influence of Certain Metabolic Inhibitors on Ability of Gibberellin to Induce Growth  
of the Base of the Corn Leaf—M. A. Stroganova ..... 202 1217
- Dissipation Entropy of a Leaf System as a Measure of Loss of Assimilates in the Light  
—R. I. Florov and Zh. Stoyanov ..... 204 1219



Measurement and Magnitude of the Isotope Effect in Photosynthesis—O. D. Bykov . . . . .	206	1449
Effect of Retardant CCC, Morphactin, and Abscisin on Endogenous and Induced Growth of Pea Sprouts—V. G. Kochankov and M. Kh. Chailakhyan . . . . .	209	1452
INDEX		
Author Index, Volumes 178-183, 1968. . . . .	215	
Tables of Contents, Volumes 178-183, 1968 . . . . .	217	



